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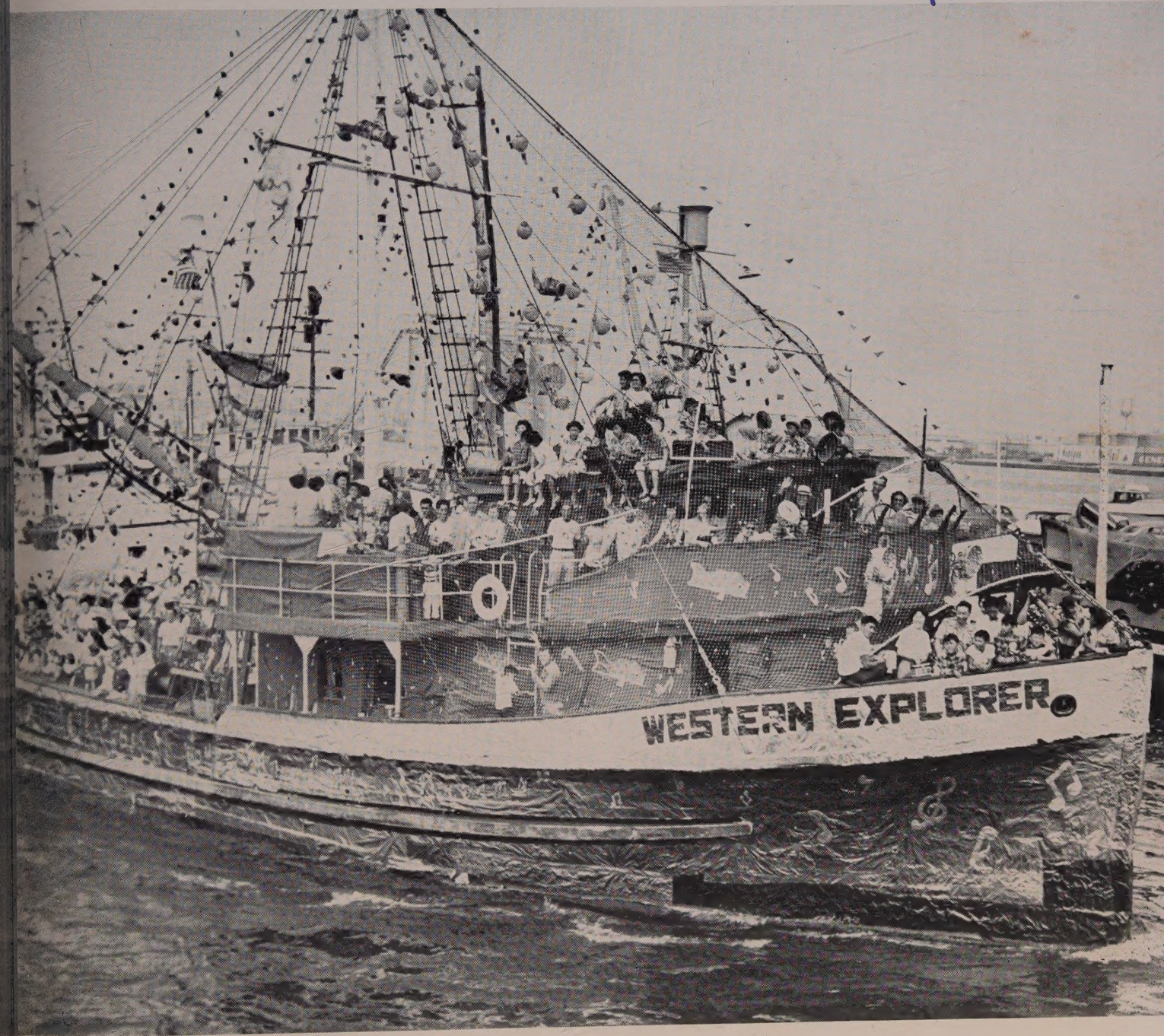

In This Issue:

★ SAN PEDRO FISHERMEN'S FIESTA

★ SALVAGING THE COURAGEOUS

★ UPS AND DOWNS OF THE SARDINE FISHERIES

INSURING THE PRESENT

. . . AND THE FUTURE

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Are Directed to Improvement and Prosperity

Of the Tuna Industry

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Scene at Fishermen's Dock, Berth 73, San Pedro during annual Fishermen's Fiesta. More than 200,000 persons are expected to view gigantic port celebration calling attention to Los Angeles Harbor as home of world's largest commercial fishing fleet.

SEPTEMBER 19 AND 20, 1953

Sponsored by the

San Pedro Chamber of Commerce

Latest Chapter In Growth Of

LOS ANGELES HARBOR

A $20,000,000 post-war construction program for Los Angeles Harbor was written into the long history of the West Coast's great port last month when the Matson Navigation Company took over operation of a new $8,250,000 terminal preferentially assigned to the big shipping system by the Board of Harbor Commissioners.

It forms the newest link in a 100-year story of how a little known pueblo of the West built a harbor that built one of the world's great cities—Los Angeles.

When the S. S. Lurline of the Matson Line pulled up to its new wharf at Berths 195-198 the morning of July 11 it initiated service into the newest facility of a harbor development that began 100 years ago and now represents a total investment of $150,000,000.

Although one of the oldest ports of the western hemisphere, Los Angeles Harbor, paradoxically, is also one of the newest.

Early History

Discovered in 1542 by one of the famous explorers from Spain in the Middle ages, Juan Rodriguez Cabrillo, the port lay virtually dormant for 350 years before a little group of men, realizing that Los Angeles must have transportation before it could have growth, set out to build a harbor where nature never had intended one.

Out of the mudflats of San Pedro and Wilmington, which Cabrillo had named Bahia de Los Fumos, or "Bay of Smokes" because of brush fires set by the Indians on Palos Verdes, man has built in the past 50 years one of the globe's great harbors, exceeding any other natural ports because, in the words of one of its chroniclers, "Los Angeles is a harbor planned and built for shipping."

The port was little more than a harbor for itinerant vessels until the 1850's when General Phineas H. Banning founded Wilmington, inner harbor of the present development, and began using it to land military supplies needed in the Civil and Indian Wars.

In the '80's, a group of citizens began talking about building a breakwater to protect ships, lying off the mudflats, from rough seas, and some 15 years later, their efforts resulted in a $2,900,000 Congressional appropriation for a breakwater.

Rapid Growth

Harbor revenues in 1912 were slightly more than $8,000. In 1952 the figure was almost $5,500,000.

Port commerce leaped from less than 2,000,000 tons annually in the early 1900's to more than 25,000,000 tons by the end of the 1920's.

The spectacular growth of Los Angeles in the following 20 years up to the present day continued at an even greater pace than that set in motion 40 years ago upon completion of the first breakwater.

Today, the harbor represents a 7,000-acre facility with 24 terminals, or transit sheds, including the new Matson installation. Wharfage space of the sheds will accommodate 38 ocean liners, 14 oil tankers and 15 lumber carriers simultaneously.

Four railroads, 200 motor truck lines and six main highways provide ample land transportation to and from the harbor's 28 miles of water frontage. The wharves, platforms, ramps and sheds cover 170 acres of land.

The west's biggest gateway to South America, the Pacific Islands, the Orient, New Zealand and Australia, the harbor draws its traffic not alone from the tremendous industrial development of Los Angeles but from each of the 11 western states.

Big Fishing Industry

Fishing, California's fourth largest industry, makes Los Angeles the world's largest fishing harbor. More than $200,000,000 has been invested by public and private enterprise in ships and facilities there and the annual catch handled exceeds a billion pounds with a value of $100,000,000. Thirty thousand people earn their living at Los Angeles Harbor and vicinity by the catching or processing of fish products.

To keep abreast of the surging industrial development of Southern California, the Board of Harbor Commissioners launched a $25,000,000 building program after the war to create new facilities needed for the industrial expansion and bring up to date those improvements which had to be delayed during the war.

These included $16,000,000 for new cargo and passenger facilities, $4,000,000 for fish-handling installations and $5,000,000 for land purchases, streets, dredgings, bulkheads and other improvements to existing property. These expenditures are in addition to a million dollars a year spent for maintenance.

Completion of the Matson Terminal, largest of its kind in the world, finishes the current program but on the desks of harbor engineers and architects lay new plans for the future. It is a 50-year plan for Port Improvement. *

New Mid-Water Trawl

An almost untouched zone of the Pacific Ocean has been opened to commercial fishing and research by a new mid-water trawl developed and perfected by the California Department of Fish and Game, says a press release from that agency.

Using the giant net towed behind a powerful state marine research vessel, fishing at almost any desired depth in the ocean was possible. Until now, most ocean fishing has been concentrated in two zones—near the surface and along the bottom.

The trawl is being used to find out what kinds of fish, and how many, are in this salty "no man's land."

While operations with the mid-water type of trawl are not new, having been conducted in Europe and Canada among other places, this modification is believed to have produced the first successful results with commercial-sized gear in California waters.

The new device, which can be used with standard otter-trawl gear, operates on the same principle as the parachute. Four quarter doors, or small kite-like deflectors at the corners of the net, are forced outward as the net is towed through the water. Pulling against each other, they stretch the mouth of the net tight. The modification eliminates the fish-scaring bridle which runs in front of the ring-type net and earlier adaptations of the mid-water trawl. Only the amount of cable available limits the depth at which the new rig can be towed.

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About This Issue . . .

"Iwashi" and sardines are not exactly synonymous terms in Japan, and maybe the Japanese cycle on sardine catches will not hold true in California. But it's worth analyzing—and there's interesting information in Dr. Fujinaga's article, "Ups and Downs of Sardines," on page 10.

*

The first sinking of a tuna boat with steel hull, last month, meant that some new problems had to be worked out. How expertly matters were handled is shown in Art De Fever's story, "Salvaging The Courageous," on page 16.

Then there are some significant facts about the "Los Angeles Harbor" on page 4; "Japan and West Coast Markets" on page 13; and a "Cruise Report" on page 27.

*

Summers in California are a continual round of fiestas and celebrations and "Queens"—from one locality to another. The fishing industry plays its part. Last month's "Harbor Days in San Diego" will be found on page 20. This month's big attraction, "San Pedro Fishermen's Fiesta," is described on page 15.

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EDITORIAL

SOME MORE ABOUT TERRITORIAL WATERS

TO say that ex-president Gallo Plaza, of Ecuador, was a man for the "quick buck" may be an understatement of fact, although in all fairness we admit the good man may have been influenced by others within his government.

First he was sold a "bill of goods" by a couple of American promoters back in 1947 and 1948, then when the "bubble" burst it was found to have cost the Ecuadoran government about 50% of its lucrative revenue from the United States tuna fishing fleet.

Chain of Events

The chain of events, no longer news, but helpful in understanding later events, constitutes one of the silliest imbroglios in the hemisphere and runs something like this:

With the world food situation critical immediately following the war, and the United States the self-appointed bread-basket of the universe, pouring literally millions any place it would stick; with the United States tuna fishing fleet virtually out of business, because of vessel conscription; with the Japanese tuna fleet all but extinct, for the same or other reasons—the time was ripe, according to our genius promoters, for Ecuador to enter the tuna fishing business and set up an empire to compete with the United States in this field of food production.

Idea Sans Money

The idea blossomed forth. It was sold hook, line and sinker to the Ecuadoran government. Unfortunately, Ecuador had no dough to back the scheme. Likewise, characteristically, the promoters were broke. But they knew where money existed, which bespeaks well for their acumen. They set forth to investigate the coffers of the Export-Import Bank and of the World Bank.

Meanwhile negotiations continued with the Ecuadoran government, and legislative battles sprang up. The United States tuna fleet pulled to protect their long established legitimate stake, and the equally vociferous promoters struggled valiantly to save the hot-air they had firmly pressed into the throats of willing Ecuadorans. An impasse resulted—but it was now 1950.

The War Is Over

The United States tuna fishing fleet was back in business, and in addition several new long-range tuna clippers had been launched. The Japanese tuna fishing fleet was back in business, too, with many new and long-range vessels. In addition, the world food situation was less critical, because the United States could find no other places to put food for the moment.

Both the Export-Import Bank and the World Bank surveyed these conditions. They took into consideration several pertinent matters which threw much light on both sides of the categorical fence—but for some curious reason, the beam was not strong enough to reveal to Ecuador the extremely ridiculous position in which it stood. The light was strong in both the Export-Import Bank and the World Bank, and there the "bubble" burst.

A Dream Gone Wrong

Presumably, the promoters turned to new pastures. Unfortunately, Ecuador clung tenaciously to her brilliant dreams, despite the fact that she continued to lose revenue from the United States tuna fleet in permits. At that time she was receiving sufficient revenue from this source alone to pay one-third of the operating costs of her Navy.

In one of her first moves, she upped the fees from a long established $7.50 per ton to $12. The United States tuna fleet did not object to this measure. Next Ecuador invoked territorial water limits and thrust its categorical sovereignty 200 miles at sea.

Almost before the ink could dry on this move, they revoked the privilege of obtaining valid fishing licenses along the Ecuadoran territorial waters on the continental coast. Coupled with this gesture was the automatic revocation of obtaining valid fishing licenses by radio for Ecuadoran waters.

Trouble Piles Up

Still unhappy with the United States tuna fishing fleet, Ecuador contested the validity of the current United States system of issuing clearances bearing destination "high seas" and the use of these clearances bearing in conjunction "via la pesca."

There followed a series of further incidents of which both Ecuador and the United States should be mutually ashamed. These precipitated a conference on United States-Ecuadoran Fishery Relations from March 25 through April 14, 1953.

"To Be or Not to Be"

The results of this conference were carried in the editorial page of our May, 1953, issue; and we are now in the throes of speculation as to whether or not the "happy conclusions" mentioned therein may not be termed "the heat of Latin passion."

It now remains, if such a measure is at all possible, for His Excellency, Senor Doctor Don Jose Maria Velasco Ibarra, president of Ecuador, to reinstate the former friendly and agreeable fishery relations between the United States and the Republic of Ecuador that were enjoyed, mutually, ten years ago, during his previous tenure as head of that Republic.

ROBERT K. LAWSON

Report from Washington

Gleaned from the Nation's Capital by John Harms

LAST MINUTE FLURRY.--Too late for passage, there was a pre-adjournment flurry of law-making activity in Congress of interest to fishermen--also too late to report or analyze in our August issue.

The representatives of the people, going home to face constituents, remembered their fishing interests. It's one way to let the folks back home know they want to be re-elected in 1954.

Most of these legislators had to "play ball" the past session. They've helped their fellow legislators. Now--next session--it should be their fellow congressmen's turn to help fishing interest representatives try for some relief for the industry.

This may be sooner than many now expect.

It has been almost forgotten that President Eisenhower let Congress go home on an "on call" basis. He indicated he might call the lawmakers back this fall to give him another $15 billion on which to run the country--if he still needs it.

--o--

HALIBUT ACT RE-PASSED.--The President signed bill S.2434 to amend the Northern Pacific Halibut Act of 1937.

While there are word changes in the amendment, actually its purpose is to bring up-to-date the original agreement between the United States and Canada on conditions for taking halibut from the North Pacific.

There is no change from the convention between the two governments signed at Ottawa March 2, 1953.

--o--

FISH AND WILDLIFE FUNDS PASSED.--While the Interior Appropriation Bill requires the branch of Commercial Fisheries to take a cut of $29,000 for fiscal 1954, the branch has promised Pan American Fisherman it will still be able to carry on the following activities:

1. Operate the gear development and research station in Coral Gables, Florida.

2. Continue the market news service office at Hampton, Virginia.

3. Continue the technological laboratory at College Park, Maryland.

4. Carry out as originally planned such major research and activities as the North Atlantic bluefin tuna exploratory fishing project, the freezing fish at sea studies, national coverage for fishery statistics, and operation of the fishing vessels, John N. Cobb and Oregon.

EASIER CUSTOMS OK'D.--Signed by the White House was H.R. 5877, to amend the administrative provisions of the Tariff Act of 1930 and related laws.

Not a tariff bill, it brings procedures more up-to-date, eliminates much red tape.

--o--

SMALL BUSINESS AIDED.--Now public law is the legislation which substitutes a Small Business Administration for the old Reconstruction Finance Corporation.

While the new agency will continue some of the lending functions of RFC, it will have the new responsibility of preserving small business and free competitive enterprise in the United States.

The new agency, as the watchdog for small business, may be called on for information or action as an adjunct to the other government agencies such as the Fish and Wildlife Service now looking out for fishing and the fisherman's interest.

--o--

FREE FISHING RIGHTS MAINTAINED.--Prominent U.S. Senators are going to bat to protect traditional free fishing rights on the high seas beyond the three-mile limit.

The issue has been raised as an outcome of the law giving coastal states title to offshore lands, particularly recognition of that limit at ten and one-half miles off Texas and West Florida in the Gulf.

Senator Leverett Saltonstall (R.-Mass.) told us the United States would "reaffirm its traditional policy" of free fishing rights outside the three-mile limit.

White House action is expected in answer to a letter Senators Saltonstall, Spessard Holland (D.-Fla.) and Price Daniel (D.-Tex.) have written to President Eisenhower.

It is still feared that the tidelands oil as it affects Texas and Florida might be interpreted by other countries as entitling them to extend their zone of exclusive fishing rights beyond the historic three miles.

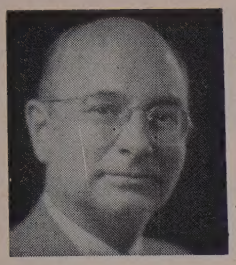
The three Senators have called on the President to make it clear that the United States will insist on traditional free fishing rights, except in the Gulf of Mexico off Texas and Florida.

--o--

PRESIDENT'S TARIFF AUTHORITY EXTENDED.--While a bill was passed to extend the President's authority to enter into trade agreements, it will have no effect on present agreements involving fish.

Reason: We are informed the President will take no action under it, except perhaps some action based on Tariff Commission findings, until the new Commission on Foreign Economic Policy has a chance to study the entire international trade problem.

The new foreign policy body is directed to examine, study, and report on international trade and its possible enlargement. *(Page 25, please)*



The Publisher's Page . . .

What Washington Thinks.—People in government may not be smarter than the rest of us, but they are nearer the center of today's hot events. So they can give us inside dope on what's coming in business and government.

One sure thing is that spending for defense is going to be cut back a little but not much. War scares, both hot and cold, are expected to continue indefinitely.

This means that business will blow hot and cold too. One day you'll read in the newspapers that deflation has set in; next day another paper will tell you that inflation is starting up again. Both may be right; there will be more and more divergencies in different lines of business . . . some good and some bad.

Taxes are bound to be reduced before long. The people now know we have been on a spending spree for 20 years, and a lot of it was unnecessary and wasteful. Budgets are going to be trimmed, for the voice of the people will be heard—screaming worse than ever about the tax burden. If that's what it takes to get action, go ahead and scream, especially to your Senators and Representatives now that they are home for the fall recess of Congress.

What's Wrong with the Weather?—Of all the topsy-turvy things in the world, none is more so these days than the weather. Texas dried up for months and then had floods; the East and the mid-west have had a scorching hot summer; Florida and the Gulf states started their hurricane season much earlier than usual.

Now comes a man in New York, widely advertising a book that declares the weather is changing all over the world; many businesses and certain areas of various nations, including the United States, will be affected. He says that many animals are already changing their habitat, and hints that some human animals should do likewise.

This sounds a little sensational to us, but there's plenty of freakish weather to talk about. Some folks blame it all on the atom bomb. And now comes the H-bomb! These bombs, with all their power, still don't make rain, produce floods, nor cause droughts. So say the weather experts.

If the weather's too hot or too cold, too wet or too dry, scientists say it is just one of Nature's caprices and that such things always have gone in cycles and probably always will. While the weather remains largely a mystery, improvements are being made in weather forecasting methods; there's more knowledge about the important upper air currents. The science of meteorology, still in its infancy, gives promise of becoming more and more helpful to growers and others.

A Salesman's Prayer.—Oh Lord, in these days when Anybody can sell practically Anything, help me to remember that it will not always be thus: that Humility is still the Hallmark of the Successful Salesman; that the Seller is always Servant to the Buyer; that Arrogance costs as many orders as Ignorance of the Line; that I have too short a Memory ever to tell a Lie, and that Buyers have too long a Memory ever to forget a Wrong. Above all, help me to remember that no one ever lost an Order because Quality was too High or Service too Good. Amen.

Not Going to the Dogs.—My old Baltimore friend, Jerry Fleischman, quoted his hometown newspaper in a recent issue of his house organ:

"The headlines in any day's newspapers are enough to explain why a baby yells when he is born . . . Airplane crashes. Ship collisions. Murders. Fires. Shootings and lootings. Strikes. Taxes and more taxes. Crookedness in high places. Divorces."

And then Uncle Jerry continued: Sometimes I wonder what a Man from Mars would think of us if he were able suddenly to appear on Earth and take in our goings-on.

He'd probably go back home and report to his fellows that this globe ain't worth bothering about.

And yet it is. Everything and everybody hereabouts isn't going to the dogs. There is still a lot of love and kindness and compassion and brotherliness among us.

There still are homes—citadels of citizenship.

There still are men who play the games of life with all cards on the table.

There still are such trusting things as faith and ambition and courage.

No, we ain't goin' to the dogs at all. Let all of us—you and me and everybody else—keep doing our darndest day by day to make life worth while for ourselves, our loved ones, our city and our nation. Don't let us permit newspaper headlines to obscure the bright horizons of our work and our dreams.

The Good Old Days.—According to "The Rotarian," a 4-year-old boy recently surprised his mother by saying, "D'ya know how they made orange juice in the ole fashion days? They cut an orange in two and squeezed it!"

To that small boy and millions of others orange juice is a frozen substance in tin cans—to be opened and mixed with water, making a golden solution for drinking at breakfast or between times. The whole round orange is now known to many children as only an ornament on the dining-room table . . . and to many adults as a tasty slice in certain strong drinks.

This shows how fast the world is moving—and every business has to keep in step or get left behind.

Doing What Comes Naturally.—We are living in changing times and the boy mentioned above has his counterpart in all avenues of life and business. For example, back in the little mid-western town where I spent my boyhood there was a "fresh fish" peddler who came around to homes in a horse-drawn wagon. Still does, in fact.

So this summer a city-bred kid . . . motorized and hot-rod crazy . . . was spending his vacation there. When the peddler returned to his wagon from the kitchen, the boy said, "You won't be able to leave here now."

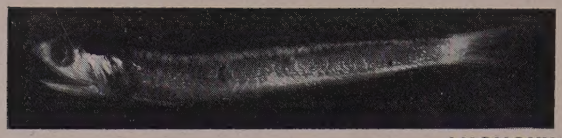
"Why not?"

"Because your horse just spilled all his gasoline!"

BRIANT SANDO

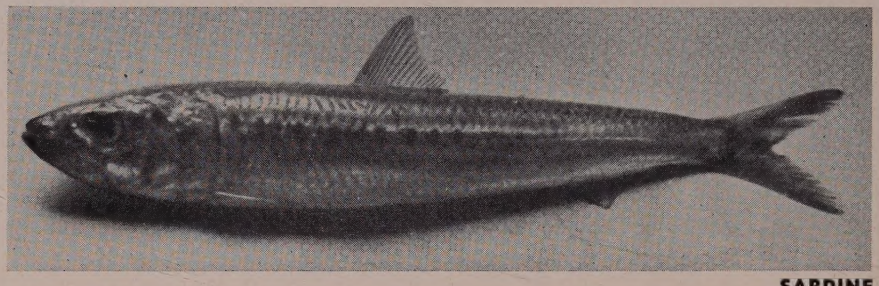
UPS AND DOWNS OF SARDINES

The Fishery for Sardines in the Japanese Waters



ANCHOVY

ROUND HERRING



SARDINE

By DR. MOTOSAKU FUJINAGA

Chief of Research Division, Fisheries Agency

Editor's Note:—The terrific decline in the California catches of sardines, the last two years, has puzzled everyone. Some of the experts think it is a cycle that will gradually correct itself. In this connection the experiences related herewith should prove interesting and informative.

Foreword

The Japanese word "Iwashi" is generally translated into English as "Sardine." "Iwashi" in Japan, however, include the following three species:

Japanese name	*English name*	*Technical term*
Ma-iwashi	Sardine	*Sardinia melanosticta*
Katakuchi-iwashi	Anchovy	*Englauris Japonicus*
Urume-iwashi	Round Herring	*Etrumeus micropus*

All of these three species of "Iwashi" are very important items in the fisheries products of Japan. In this report, therefore, "Iwashi" will not be translated as Sardine but will be used as a general term for the three species mentioned above, and Sardine will mean "Sardina melanosticta" alone.

Production, Past and Present

The history of Iwashi fishery in Japan may be traced back to a period of hundreds of years ago. As regards fisheries production in those days, no exact figures are made available except for some fragmental data in old literature.

It is since 1894 that annual results of fisheries production have come to be published in the statistics of the Japanese Government. Figure 1 shows the graphic figures of Iwashi enumerated from the statistics.

As shown in this graph, the annual production of Iwashi in the period from 1894 to 1913 was marked with fluctuations of 100,000 to 300,000 metric tons. In the decade from 1914 to 1924, it indicated a steady increase from 300,000 to 500,000 metric tons. And from 1925 a rapid increase was seen in the tonnage of Iwashi catches with a peak of 1,630,000 metric tons in 1936.

After that, however, the production began to show a sharp decline and in 1945 it registered only 260,000 metric tons, which was equivalent to the level of 30 years ago. Since 1946, it has been showing some indications of recovery.

The fact that Iwashi catches began to show an increase in 1914 or so was largely due to the powering of coastal fishing boats by which the field of their activity was enlarged and to the introduction of purse-seines and encircling nets for Iwashi fisheries rather than to an absolute increase of Iwashi population.

The trend of a rapid decline in Iwashi fishery after its peak in 1936 was certainly caused by the sparsity

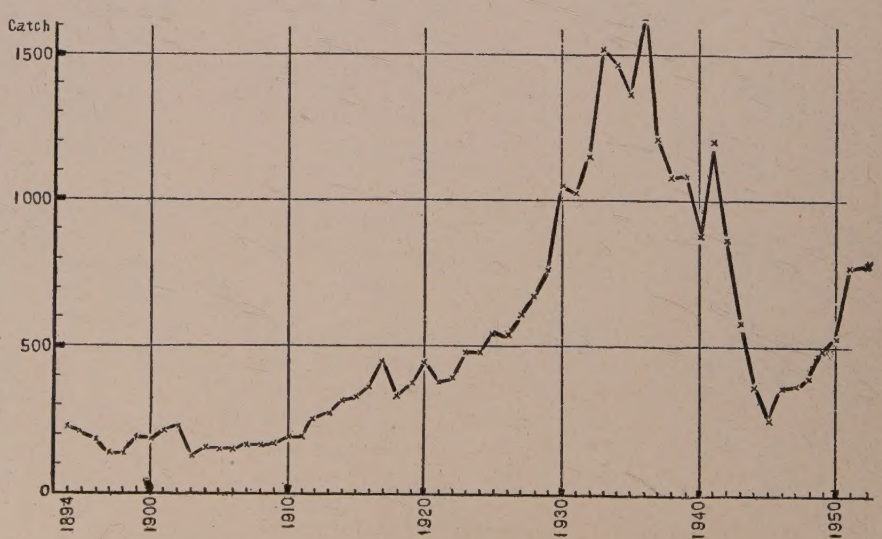


Figure 1—Showing the ups and down of "Iwashi" catches, 1894 to 1950.

of the resources. But as to the cause of the sparsity, there is a divergence in opinion among biologists whether it is the natural decrease of resources, or overfishing, or chances of sea conditions.

Composition of Catch by Species

As already mentioned, Japanese Iwashi include three species. But in the statistics of fisheries in the past there was no breakdown for the different species. Only since 1951 have the fisheries statistics been broken down into the three species. Accordingly, it is impossible to enumerate now the exact tonnage of the production by species in 1936 when the highest record was established. But reliable estimates of the breakdown by species give the following figures:

Catch by Species in 1936

	(estimated)	
Sardine	1,460,000 tons	90%
Anchovy	120,000 tons	7%
Round Herring	50,000 tons	3%
Total	1,630,000 tons	100%

The above table shows that among the three species, Sardine, representing 90% of the total catches, predominate over the other two species which only come up to 10% when added together.

In 1952 the following figures by species were registered by our Iwashi fishery:

Catch by Species in 1952

Sardine	298,632 tons	47.5%
Anchovy	284,548 tons	45.2%
Round Herring	46,111 tons	7.3%
Total	629,291 tons	100.0%

At Tokyo Bay—purse seiners

Age Composition of Sardine in 1936 (estimated)

Age	0	1 yr.	2 yrs.	3 yrs. and older	Total %
% of Number	25.0	62.6	10.9	1.5	100
% of Quantity	8.8	66.1	21.6	3.5	100

Note: White bait excluded.

Age Composition of Sardine in 1951

Age	0	1 yr.	2 yrs.	3 yrs. and older	Total %
% of Number	91.1	4.2	2.1	2.6	100
% of Quantity	64.8	9.1	9.9	16.2	100

Note: White bait excluded.

Comparison of the two years (1936 and 1952) in regard to the percentage of the three species, shows that in 1936 Sardine filled 90% while Anchovy narrowly reached 7%; but in 1952 Sardine represented only 47.5%, or below a half of the total catches, while Anchovy showed a marked increase with the catch amounting to 45.2%, almost equal to the percentage of Sardine. Besides, as regards its absolute quantity, the production of Anchovy in 1952 reached more than two times as much as that in 1936.

This may explain the fact that the gradual increase of Iwashi population in Japanese waters of late years has come from a remarkable augmentation of Anchovy rather than from an increased stock of Sardine.

This table indicates that the production of 0 year class Sardine in Japan of late years predominates over that of other older fish, not only in their number but also in their quantity. What about their age composition around 1936 when their greatest catch was recorded? Since an age survey was not yet undertaken on a national scale in those days, data are not available for obtaining exact information. But from estimates based on fragmentary data, it is probable that their age composition was as shown in the 1936 table herewith. *(Continued on page 23)*

Hauling net on beach at Katakai

3 IMPORTANT Features

In Our
DECEMBER 1953
Issue

Commemorating Three Big Events . . .

1 The 50th Anniversary—the Golden Jubilee—of tuna canning and the establishment of tuna as an important food industry on the West Coast.

2 The year 1953 marks the canning of the 100 millionth case of tuna in California, and each of the 48 state governors will be sent a case of canned tuna to publicize the event on a nation-wide basis.

3 National Tuna Week—an annual promotion that arouses interest all along the line from the tuna fleets, through the processors and handlers, to the consuming public.

★

ADVERTISERS: Tie into this Year-End Special with extra space, as this issue will have extra interest, longer life, and increased circulation. Send your space reservation now!

Pan American Fisherman

"Business Magazine of the West Coast Fisheries"

ORANGE • CALIFORNIA

Japan and West Coast Markets

Japan's effort to rebuild its U. S. market is a dogged, unobtrusive business operation, more businesslike than it ever was before the war, according to a survey in the current issue of Business Week magazine.

It can be seen in spanking-new Japanese freighters steaming into California ports, in recently reopened banking offices in Los Angeles and San Francisco, in trade exhibitions in Seattle, in newspaper ads for Japanese housewares. It can be heard, too, in occasional howls from U. S. businessmen who fear rising imports from Japan will cut into their sales.

In general, however, West Coast Americans tend to be sympathetic, Business Week says. A Pacific Northwest observer remarks: "It's difficult to believe the two nations were ever at war." A Los Angeles business leader explains: "We are all taking what we consider an intelligent approach to the growth of Japanese imports. The Japanese occupy a new position in our world. They need us, and God knows we need them as an ally."

That attitude is more than a politically realistic one, it is pretty good business. The West Coast realizes that it must boost trans-Pacific trade to keep its harbors and exporters busy and prosperous.

The Japanese are careful about stirring up bad feeling in the U. S. For example, last year brought a storm of protest from U. S. fishermen; it almost, but not quite, resulted in a stiff duty increase. The Japanese saw the writing on the wall and put themselves on a voluntary, unilateral quota. Industry observers think that quota had a lot to do with the Senate's defeat of the tariff bill.

Tuna Fishing On Longlines In the Central Pacific

A REPORT from the Pacific Oceanic Fishery Investigations, Honolulu, T. H., covers a manuscript on "Longline fishing for deep-swimming tunas in the central Pacific July 1950-September 1951" by Garth Murphy and Richard Shomura. It discusses the distribution and abundance of yellowfin tuna in the equatorial region south of Hawaii. These experimental fishing studies, carried on concurrently with the investigation of the ocean currents, have demonstrated the presence of large quantities of yellowfin tuna near the equator.

It was found that while the surface tuna in some area were small, ranging from 20-60 pounds, the longline-caught fish were larger, ranging in size from 80 to 150 pounds. During the three cruises reported in this paper the greatest abundance of yellowfin was located between 150° and 160° west longitude and 1° and 6° north latitude.

The authors speculated that if the rate of capture of a commercial vessel was as great as for the most successful of the three cruises—12.9 yellowfin per 100 hooks—an American fishing boat, fishing 900 hooks per day as compared with 2,000 fished by the Japanese, would catch about 14 tons of tuna per day. A catch of this magnitude is considerably greater than the average daily catch for West Coast vessels.

The *John R. Manning* departed for the equator during the last of the month and will fish across the tuna rich zone at 150° and 170° west longitude. Attempts will be made to sample the tuna food using a mid-water trawl, thus obtaining a better understanding of the vertical as well as horizontal distribution of tuna. Deep trolling is being tested as another way to sample the tunas. It is hoped that it will more clearly demonstrate the presence or absence of the smaller yellowfin not commonly taken on the longline. Further studies will also be made to test modifications of the longline gear so as to fish more hooks with the same or less effort than heretofore.

Considerable emphasis is being placed upon improving the longline fishing gear by increased efficiency in handling, increasing the number of hooks fished in a given length of main line and improving the lasting qualities of the gear. A steel cable main line, wound on a drum with readily detachable hook droppers, shows considerable promise. Also modifications of the materials used in making up the regular cotton gear have reduced the initial cost of the gear nearly 30 per cent without reducing the efficiency.

The *Charles H. Gilbert* completed a 6-week cruise in Hawaiian waters studying short-term changes in the temperature and the chemical content of the ocean and scouting for tuna schools both north and south of the Islands. A considerable number of schools were sighted and fished as far as 200 miles offshore, well beyond the range of the present skipjack fishery in the Islands. *

Trip-Lease Postponed

The Interstate Commerce Commission postponed until March 1, 1954, its order prohibiting "trip-leasing" by regulated carriers of trucks hauling fish and exempt farm products. Scheduled to go into effect September 1, the order was held up at almost the last minute.

The postponement was requested to give the Senate time to consider H.R. 3895, overwhelmingly passed by the House, which would abolish those provisions of the ICC order limiting the duration of leasing and the method of compensation.

Leading fish and farm organization witnesses also petitioned the Commission for a postponement after testifying before Congress that abolishment of the traditional leasing practices would mean no leasing at all.

The Commission's order seeks to limit leasing to not less than 30 days. Trucks, hauling exempt farm products and fish, which "trip-lease" to obtain a pay-load for the backhaul would be deprived of the pay-load if the truck could not obtain a lease for one trip.

The bill to abolish the order is now in a subcommittee of the Senate Commerce Committee whose new chairman, since the death of Senator Tobey, is Senator Bricker (R.-O.). Minority leader on the committee is Senator Johnson (R.-Colo.).

Fish and farm organization leaders still have the problem of prying the bill from the subcommittee of a committee whose two senior members are said to be strong supporters of the railroads which would benefit by the order.

Looking for Business?

Then Read This . . .

★ Last year California fishermen led the nation by landing 1.3 billion pounds of fish and shellfish, valued at $81,605,112 to the fishermen.

—Report No. 393, Fish and Wildlife Service United States Department of the Interior

The above 81½ billion dollars, after processing and passing the fish through trade channels to consumers, is estimated at more than 250 billion dollars total valuation . . . most of which was the tuna and tunalike fishes of Southern California ports covered by this magazine most completely.

California Produces More Than One-Third of the Annual Seafood Catch of the U.S.

★

This is the only commercial fishing magazine published in the State of California . . .

Published Monthly

PAN AMERICAN fisherman

Established 1947

"Business Magazine of the West Coast Fisheries"

ORANGE • CALIFORNIA

San Pedro Is Ready For the BIG Fiesta

By MARY NUGENT

SAN PEDRO, a lusty, vigorous town with rolled-up shirtsleeves, perspiration on its brow and salt water in its veins, will lift its booming voice both in prayer and celebration September 19 and 20 during the 7th annual Fishermen's Fiesta—a vivid reminder to the nation that this seafaring community ranks first among the world's great commercial fishing centers.

More than 6,000 fishermen will join with others of its 50,000 inhabitants and thousands of visitors in an observance which will combine deep religious solemnity with an abundance of gaiety for young and old.

The moment of reverence will come when James Francis Cardinal McIntyre, a tall man resplendent in the crimson robes and gold mitre of a prince of the Roman Catholic Church, will bless the boats of Los Angeles Harbor's huge fishing armada as they nuzzle lazily against Fishermen's Dock.

An integral part of the Fishermen's Fiesta since 1949, when they were inaugurated at the suggestion of a pious fisherman of Yugoslav descent, religious ceremonies will begin at 10:30 a.m. Sunday morning on the common outside of Mary Star of the Sea Church. In this simple wooden edifice where fishermen have traditionally worshipped since 1889 when San Pedro's population was scarcely more than 2,000, a Solemn High Mass will serve as a prelude to the boat blessing.

The Boat Blessing

A color guard from Fort MacArthur, followed by a contingent of white caps and another of Marines, will lead the procession of hierarchs, clergy, civic, military and stage dignitaries, altar boys and choir into the flower-bedecked church.

While the military stands at attention at the side aisles and in the back, Knights of Columbus in white-plumed hats, red-lined capes and black uniforms will face each other with drawn swords in the center aisle. Through this corridor of honor will pass the prelates and priests, headed by Cardinal McIntyre.

Leaving the church, the procession will wind through blocked-off streets to the dock. In the line of march will be a statue of Our Lady of Grace, Mary Star of the Sea. This will be borne proudly on a carrier by husky fishermen with snow-white T-shirts emblazoned with the names of their boats and the saucy, sombrero-topped tuna which serves as the offficial fiesta emblem.

The sea and the sky will offset the rich kaleidoscope of color as the Cardinal's voice floats out from a specially erected stand, intoning the phrases which from time immemorial have petitioned the Almighty to protect those who risk their lives on the waters. As he speaks, San Pedro will go back in spirit to the simple, seafaring villages of the Old World where these same inspiring rites pronounced the benediction of the church on the boats of Godfearing fishermen before each voyage.

The hush, which momentarily descends on the noisy crowds, will burst out again like a rolling wave at the conclusion of the religious ceremony. Then, more than 100 purse seiners, representatives of Los Angeles Harbor's mighty fishing fleet of 2,362 boats, will prepare to stream off to sea for the gigantic and magnificent boat parade.

The Decorated Boats

Riotously decorated from stem to stern with thousands of flowers, flags and pennants, the boats will glide by in majestic review in one of the most unforgettable and most unusual spectacles in the nation—silent spokesmen for the $270 million Los Angeles Harbor fishing industry which has surpassed historic Gloucester and storied San Francisco.

For weeks before the fiesta, entire families will toil unceasingly to glamorize their boats with tens of thousands of flowers, plus enough wood and papier-mache to construct a movie set. With their eye on the rich prize cache—this year $12,500 in cash—which will be awarded to skippers and crews for the best interpretations of the fiesta theme, "Beloved Stories," precautions to keep the decorations a top secret will rival those placed around an H-bomb plant.

Many boats will be dolled up in hidden coves as far away at Catalina. Floats will be constructed in garages or similar hideouts and transported to the dock in trucks. Still other decorations will be fashioned in nooks below deck. Growing in lavishness and complexity with the years, numerous floats will be animated by means of pulleys and counterbalances.

Few spectators at last year's seagoing extravaganza will forget the huge Al Jolson float, a faithful replica of the late singer, which went through the motions of singing while a hidden phonograph played "Mammy."

Theme: "Beloved Stories"

Equally vivid in many memories must be the "Wheel of Fortune" and the "I'm Forever Blowing Bubbles"

(Continued on page 18)

To solve painting problems, ask your dealer or write for Hart & Burns' new booklet, "Yachting, Yak-ing and You."
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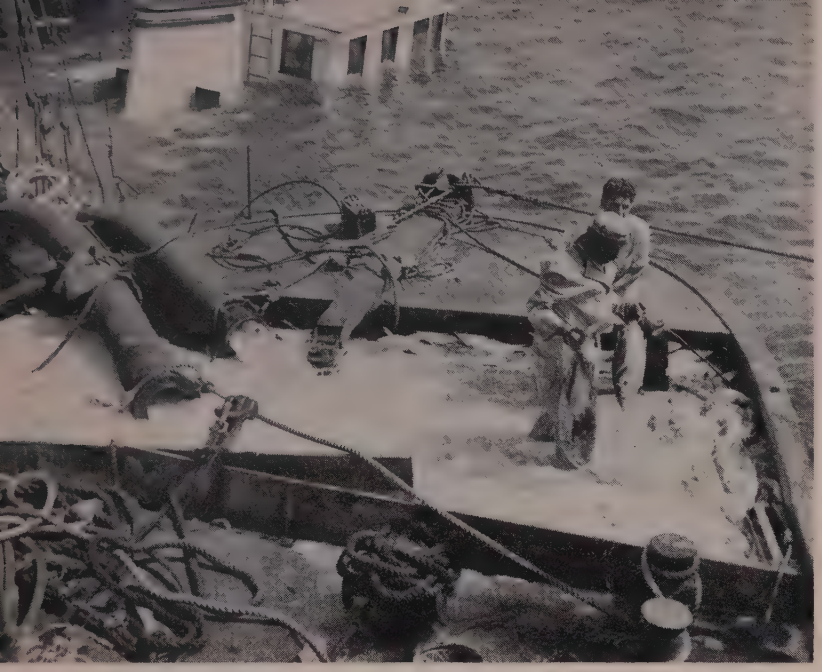

All that remained visible of the Courageous is shown at upper left. Saving the boat and the cargo spelled double trouble. Just back from a 92-day trip off Peru the 122-ft. steel hull boat was built in Long Beach in 1945.

Salvaging THE COURAGEOUS

By ART DE FEVER

THE sinking of the 320-ton capacity tuna clipper Courageous, on July 18, at the Embarcadero in San Diego, touched off what looked like an epidemic of such mishaps, when a report was received almost simultaneously that another clipper (the South Pacific) was sinking at a marine fuel dock nearby. Quick action on the part of the San Diego Harbor Department and the City Fire Department, prevented serious damage to the South Pacific. The Courageous was not so fortunate.

With nearly a full cargo in her fish holds, the eight-year-old vessel went down in 30 feet of water, almost without warning; and the tremendous job of salvaging the vessel, together with her cargo and equipment, presented difficult problems not heretofore encountered.

Steel Hull Problems

Being of all welded steel hull construction, special problems in technique were involved as compared with those in a vessel of similar size of wood hull construction. Wooden vessels contain their own bouyancy, with the exception of engines, pipes, tanks, and equipment; while steel vessels, on the other hand, remain dead-weight, except for the relatively small amount of their displacement. Coupled with this factor was the fact the Courageous contained a cargo of fish, adding considerable weight in its frozen state.

The sinking occurred in the virtual center of the San Diego waterfront traffic, hence attracted crowds of spectators throughout the 11 days necessary to bring the vessel to the surface. Significant, perhaps, were many of the remarks from sidewalk superintendents, since they served to emphasize some of the problems encountered in the operation—the first steel tuna boat ever to be salvaged after sinking.

Before the actual physical raising could be started, calculations were necessary to determine the specific equipment required for the job, and the availability of that equipment. First, there existed 500 tons in hull, machinery, and equipment, together with about 312 tons of cargo, weighing about 62 tons submerged. This brought the total vessel weight to approximately 562 tons, allowing for displacement of the steel hull and other equipment, including cargo totally submerged. The total deadweight would, of course, be much higher above the surface.

Generally speaking, in the ship salvage business, there are five methods by which a vessel may be refloated under similar circumstances: 1, by the use of floating cranes; 2, with a cofferdam; 3, with pontoons; 4, with inshore pile dolphins, pile caps and winches, and offshore cranes; 5, by using the vessels compartments for bouyancy.

Five Methods Considered

All of these methods presented special problems unique in this particular case, due to the all welded steel construction and the fish cargo, both of which were deciding factors in the ultimate method adopted. An early decision was to use every means possible to save the cargo, since this alone represented approximately $90,000 to the crew and owners, and it was not insured. Originally, it was expected the cargo would thaw in about 48 hours, thus presenting another complicated aspect to the salvage operation.

In considering the first method mentioned above, the availability of floating cranes was the big factor. Those available on the West Coast were of 110-ton capacity. Limited

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Mr. De Fever is a well-known Marine Surveyor and Naval Architect. He has designed many of the vessels serving today in the tuna fishing fleet, and has handled salvage jobs on the West Coast and in Central America.

operational space would prohibit the use of more than two or three such units, which would not provide sufficient lifting power. Consideration was given to using a 350-ton crane, available in Long Beach, but this was found to be unseaworthy in open waters and therefore classed as unavailable.

The use of pontoons in shallow water with a vessel of this tonnage was considered impractical because of the large size needed. Coupled with this, it was impossible to place pontoons between the hull of the vessel and the pier pilings at the dockside. This eliminated method No. 2.

Method 3 would involve driving a sheet steel cofferdam and piling completely around the vessel hull, pumping out her compartments and hull, and refloating the vessel gradually within the confines of the cofferdam. This method was given scant consideration because it meant total loss of cargo due to the time required to build the cofferdam. The costs of this method also were considered prohibitive.

Elimination of these three methods resolved the problem to a choice between the two other methods available, and both were given careful consideration. Each had advantages, but method 4 was similar to method 1 where we were confronted with crane capacity. Obviously, it would require the use of several cranes.

The Winning Method

This method was known to be highly successful in a previous salvage job in San Francisco where a steel tug was refloated in three weeks at a reported cost of $120,000. Both the cost and the time element were the objectionable features to this method. It was discarded despite its distinct advantages in regard to stability.

Hard work and careful planning saved a goodly portion of the $90,000 cargo.

The method finally adopted was No. 5, that of using the vessels bow fuel tanks, fresh water tank, and the bait and fish wells as bouyancy tanks.

With the problem of "how to do the job" solved, the matter of getting the equipment together and beginning the actual operation of removing the fish and refloating the vessel was underway within a few hours. The Pacific Towboat & Salvage Company, of Long Beach, was contacted and brought their 80-ton floating crane to San Diego, along with the salvage tug Kanak. A great deal of reliance was placed in Erie Judd and Jeff Hoag, both experienced salvage men, whose assistance in supervising their crews and equipment contributed greatly to this successful salvage job.

Sidewalk superintendents had a field day along San Diego's busy Embarcadero.

Since the item of saving the cargo was of primary importance and involved in the time element, this was tackled first. As previously stated, it was estimated the fish would thaw out in about 48 hours, and this miscalculation has since confounded waterfront personnel, fishermen, and cannery authorities.

Actually the fish cargo remained frozen during the entire ten days the vessel remained on the bottom. Relays of divers were used to bring the fish out. It was necessary to use bars, jetting, steam, and actually setting up circulation pumps to thaw the fish sufficiently for removal from the fish holds.

Seven divers, including aqua-lung

At work here are an 80-ton floating crane and the salvage tug Kanak.

divers, participated in the cargo removal, and it moved along at a good rate for five days with most of the fish coming out in excellent condition. Arrangements had been made with canners to process the fish at once. The actual salvage of the cargo for useful purposes came to an abrupt halt when the health authorities stepped into the picture and condemned the fish.

This occurred on July 22, when official word was received, and presented another problem, unforseen in the salvage operation. Canners, of course, refused to accept further fish, despite the fact the cargo was still frozen and coming out in very good condition. Every effort deemed practical was used in the salvage operation to insure good condition of the fish when delivered at the cannery.

Handling the Cargo

Arrangements were subsequently made with other canners to accept some of the cargo for reduction purposes, but during the lapse of time necessary to complete this arrangement disposal of the quantities of fish brought from the holds presented a health problem at the site of salvage operations. This was solved by taking the cargo outside the limits and dumping it at sea. It is significant to note that the major costs involved in the salvage of the vessel were in recovering the cargo, although it had to come out to permit use of that space for bouyancy.

During the periods when it was impossible to remove fish, due to its frozen state, the divers were connecting suction hoses, air hoses, setting up cofferdams, and preparing hatch covers. Two large cofferdams were

(Continued on page 24)

San Pedro Fiesta

(Continued from page 15)

floats which graphically depicted the 1952 fiesta theme, "Musical Memories." The former featured a brilliantly hued, revolving roulette wheel, a huge pair of dice and the kind of hand that poker players dream about—four aces and a jack high.

Out of a giant pipe on the latter (see front cover illustration) bubbles swirled into the bright afternoon sun where they glistened and burst. Carrying the motif a step further, strings of vari-colored balloons cascaded from the mast to the deck.

The keynote of the merriment which converts San Pedro from a bustling, hard-working town to fun capital of the Southland will be struck long before, however. As the Fishermen's Fiesta steering committee begins to formulate and announce plans for the mammoth marine fete, fiesta fever will grip the community whose $100 million harbor serves as an ocean gateway for the sprawling metropolis of Los Angeles, just 23 miles away.

Gay fiesta caps will appear atop the heads of many San Pedrans. The fiesta emblem will make its bow on stationery and posters and soon the infectious spirit of the coming celebration will have affected all fun-loving Southern Californians.

Street Dancing and Hilarity

Festivities will be officially launched by a gigantic street dance at 9:00 p.m. Saturday night on Fishermen's Dock where the gala holiday mood immediately will begin to spin its web over the ordinarily staid port city. The fast-spreading hilarity will spill over into Sunday in the form of two solid hours of entertainment for the amusement of those who remain on the dock while the boats parade.

Attesting to the heterogeneous character of the fishing industry, Japanese, Italian, Yugoslav, Mexican and Norwegian groups in native costumes will perform the dances of their mother country as television cameras swing back and forth between the boat parade and the dock to bring a complete picture of the spectacle to thousands of viewers up and down the Pacific Coast. Earlier TV fans will witness the Solemn High Mass of Thanksgiving and the blessing of the fleet.

In addition to dancing groups, there will be fishermen who will show off their proficiency in net-mending, rope-splicing and other contests; continuous movies in an open-air theater; open house at the Naval Supply Depot; boat rides and a carnival.

International Food and Atmosphere

Those whose appetites have been sharpened by the sea will cluster around the fragrant-smelling booths of the largest, most colorful international food settlement in fiesta history. Uniformly decorated with peppermint-striped roofs, the booths will create a "gay way" atmosphere. They will be located on Fishermen's Wharf in a double row, paralleling the wharf itself, with huge streamers giving a circus tent effect and tying the entire area together.

Sponsored by more than 30 church, civic and women's groups who will use the proceeds for welfare and benefit projects, the food settlement will feed thousands of visitors who can snack while they inspect the decorated fishing boats.

Waiters dressed in native costumes will ladle up exotic delicacies cooked days before and stored in huge iceboxes at the commercial fishing companies adjoining the wharf. The cosmopolitan menu will offer fishburgers, tunaburgers, shrimp, Italian, Mexican, Swedish dishes and the more conventional American hotdogs and hamburgers.

Meanwhile, the boats themselves will be floating centers of hilarity. Between 175 and 200 passengers aboard each purse seiner will celebrate with food, drink and song. Lilting melodies squeezed out of gleaming accordions by musically gifted Italians and Yugoslavs will float across the harbor to mingle with the hubbub of the dock.

Its Early History

The Fishermen's Fiestas are symbolic of the seafaring heritage of San Pedro which dates back to 1542 and Juan Rodriguez Cabrillo. In 1938 when fishermen got together, put streamers and flags on their boats, took their families and went on a cruise to celebrate a good season, little did they realize that they had paved the way for today's elaborate fiestas.

The observances began to emerge as major events in 1946 when the San Pedro Chamber of Commerce assumed sponsorship and started singing the praises of Los Angeles Harbor whose annual catch of one billion pounds brings $50 million on the market.

Even then, however, there was no indication of the grand spectacle which today commands the attention of the nation and thrills an estimated 250,000 persons who witness it annually. With an attendance of 42,000, the 1946 fiesta was still a glorified picnic, but it did provide one episode which caused visitors to chuckle.

A parachutist who leaped from an airplane with a 40-pound tuna which he was to deliver to former Mayor Bowron as a signal for festivities to get underway became entangled in a telephone pole on the bluff overlooking the wharf. Activities remained at a standstill until he could be rescued. *

That Salty Salt
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CALIFORNIA

Test of Freezing Vessel

The experimental freezing vessel *Delaware* made a short cruise to test the operating characteristics of various mechanical equipment that was installed or reconditioned.

A six-day cruise was carried out for the purpose of thoroughly testing the newly designed and installed brine freezing mechanism, and the refrigeration equipment under full load conditions. During the course of testing the equipment, a number of lots of experimentally frozen and iced fish were prepared.

Of 10,000 pounds of large haddock, 8,000 pounds of the total were frozen in sodium chloride brine for experimental purposes. Some of the fish that were frozen were "glazed" in sea water prior to storage in the vessel's hold at 0° F.

These "glazed" fish will be compared with a similar lot of unglazed fish to determine storage characteristics on the vessel and also in commercial cold storage ashore prior to defrosting, filleting, and refreezing in commercial fish filleting plants. A small lot of gutted fish were also frozen in sodium chloride brine to determine to what extent sodium chloride will penetrate into the flesh of fish that have been gutted.

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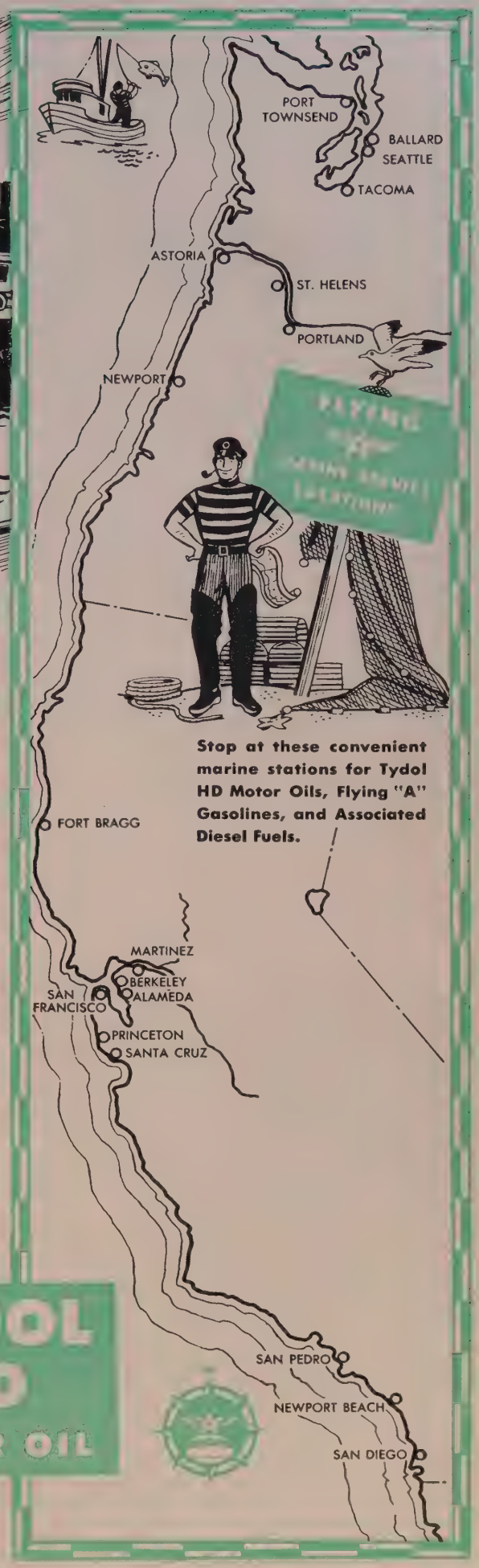

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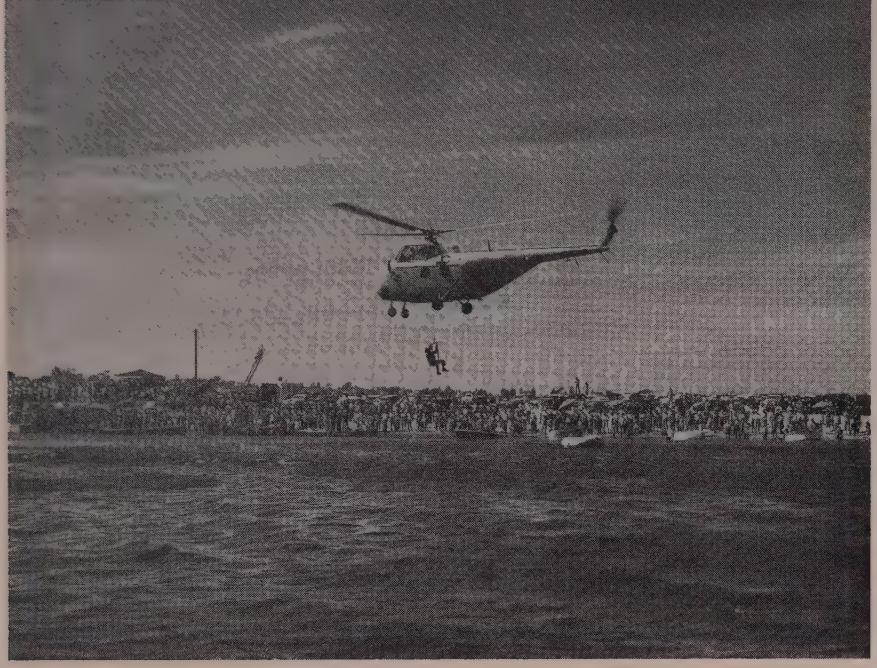


Harbor Days In San Diego

Thousands of people lined the waterfront in San Diego August 22 and 23, marking the annual celebration of Harbor Days combined with the Port and Industrial Exposition.

Under the auspices of the San Diego Junior Chamber of Commerce, the events featured the many important industries of that area, including tuna fishing, tuna packing, fish processing, boat building and ship chandlers.

One of the evening highlights was the "Parade of Lights," with boats of all sizes, both military and civilian, with their masts lighted up with millions of candlepower in the form of strings of light shaped in various designs. The fireboat Bill Kettner also staged a spectacular display with its powerful water guns.

Water skiing was a feature of several different programs, with trick riding exhibitions. Speed boat races also were staged with various classes of boats.

A colorful fireworks display closed the Saturday evening program. On Sunday the Coast Guard and Navy put on their stunts, including the air-sea rescue by helicopter pictured above, and an underwater demolition show put on by a Navy UDT team.

Sale of Frozen and Cooked Fish

One of the largest chain grocers in the nation reports that nearly 23% of its 400 stores in the New York City area are now handling only frozen products in their fish departments. This company's action in eliminating the fresh fish department in many of its stores follows the trend of recent years whereby frozen fish in filleted, steaked, pan-dressed, and ready-cooked form are becoming increasingly popular with consumers.

The U. S. production of frozen fish in consumer-size packages alone has increased from 43 million pounds in 1950 to 77 million pounds in 1953. This is exclusive of cello-wrapped frozen fish, and breaded, cooked or other frozen specialty fishery products.

Frozen fish in any form derives much of its consumer popularity from the ease with which it is prepared, as service surveys have found. Frozen pre-cooked fish products in particular are making sales gains because of this consumer preference.

Supermarket operators like items that are easily merchandised. For example, a California supermarket upped fish sales by over 300%; gondolas, pennants, secondary displays, and dump displays were supplemented by a novel life-size dummy called a "talking fisherman" which moves its head, eyes, and arm to call shopper's attention to the frozen fish display. In addition, it gives a recorded 30-second sales pitch on fish.

Frozen Food Cars

Now rolling frozen foods to market are the first 14 of a fleet of 125 mechanical refrigerated railroad cars under construction at the Pacific Fruit Express shops in Roseville, Calif., announces W. E. Becker, PFE superintendent at Los Angeles.

Another 11 cars are scheduled for completion this month. The entire fleet will be in service early next year. The cars are described as "super-giants," longer than conventional ice refrigerated cars and with insulation 50% thicker. Designed especially for frozen foods, they are capable of maintaining zero temperatures.

There is an increasing volume of this type of business, Becker pointed out, reporting that carloadings of frozen foods have nearly doubled in five years in the territory served by Pacific Fruit Express.

STANDARD ENGINEER'S REPORT

DATA

LUBRICANT RPM Delo Oils

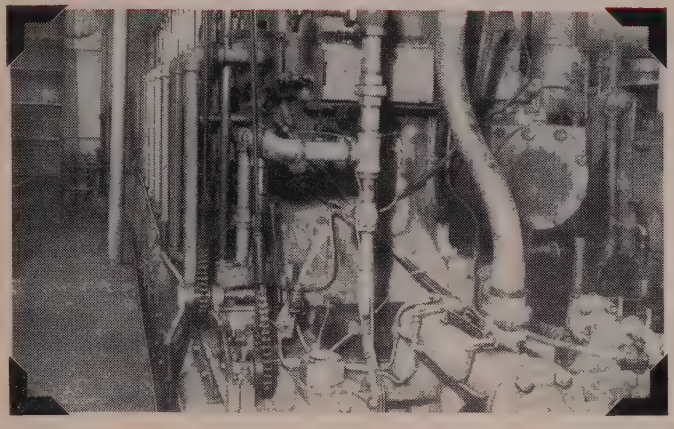
UNIT 640 H.P. dry sump diesel

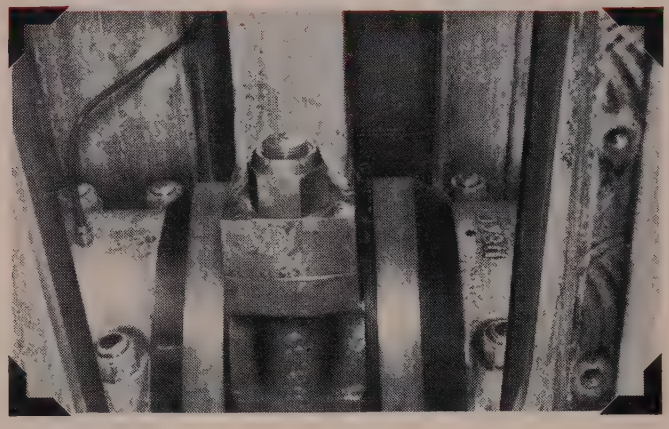
SERVICE Tuna fishing - long cruises

CONDITIONS Constant load operation—high temperature

BOAT M.V. May Queen San Diego, Calif.

Ring and deposit trouble stopped by engine-cleaning oil!





WHEN RPM DELO SPECIAL LUBRICATING OIL replaced a competitive oil in the main engine of the M. V. May Queen, ring sticking was quickly eliminated. RPM DELO Special also removed heavy carbon and lacquer deposits resulting from use of the other oil, saving needless overhaul expense. Note cleanliness of crankcase in photo above, which shows its condition immediately after completing a 78-day fishing trip. This engine works under a constant load for anywhere from twelve to fifteen hours per day.

M. V. MAY QUEEN is 121 feet long, with a 28-foot beam. She fishes off California and South America, sometimes for 70 or 80 days at a time. Her 640 H.P. engine gets a real workout in the heavy seas and tropical storms. Plane on stern is used for spotting fish.

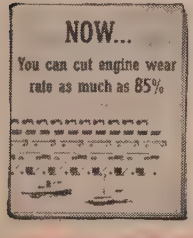
JOAQUIN MEDINA, Chief Engineer of the May Queen, says, "RPM DELO is a perfect oil for our diesels. We've gone three years now without an overhaul. And our engines are so clean that we'll probably go at least three more before we overhaul again."

How RPM DELO Oils keep engines clean and prevent wear

A. Contain special additives that provide metal-adhesion qualities...keep oil on parts whether they are hot or cold, running or idle.

B. Anti-oxidant resists deterioration of oil and formation of lacquer...prevents ring-sticking. Detergent keeps parts clean, helps prevent scuffing.

C. Special compounds stop corrosion of any bearing metal, and oil foaming in both wet and dry sump engines.



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STANDARD TECHNICAL SERVICE checked this product performance. For expert help on lubrication or fuel problems, call your Standard Fuel and Lubricant Engineer or Representative; or write Standard Oil Company of California, 225 Bush St., San Francisco.

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PROGRESS & PRODUCTION

Hart & Burns News

L. A. Hart, president of Hart and Burns, Inc., paint manufacturer of Riverside, Calif., has announced the appointment of Robert G. Landry as secretary of the corporation. He is the youngest of the executive officers in an organization controlled by young men throughout, Hart said, adding that the ages range from 31 to 40. Other "below 40" executive officers at the Riverside factory are Vice Presidents Arthur E. Burns, Jr., in charge of Research, and Earl Huston, Jr., in charge of sales.

Radiomarine's New Dealer

Ets-Hokin and Galvan, marine electrical contractors, have been appointed by the Radiomarine Corporation of America as a dealer for their radiotelephone and radiotelegraph equipment.

Radiomarine equipment will be available at the main office of Ets-Hokin and Galvan, 218 Avalon Blvd., Wilmington, California; as well as the branch offices at 2295 East Belt St., San Diego; and 551 Mission St., San Francisco.

Liquid Rubber Sealer

"Ti-Tall," a new liquid rubber sealer that's able to fill even the smallest topside and underside seams and cracks, is now available in a handy new spout applicator can.

This new applicator helps to reach all cracks and crevices and allows the liquid sealer to run into seams where heavier compounds are impracticable. This new compound is said to dry hard and uniform so that the surface can be painted or varnished 24 hours after application.

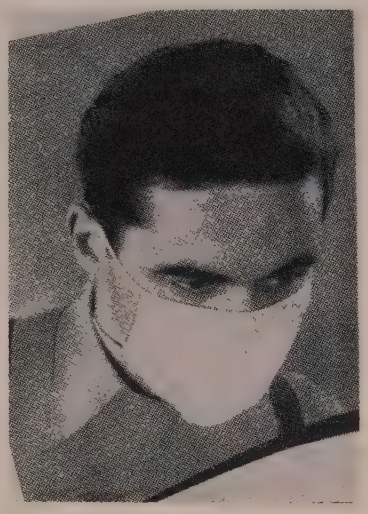
Ti-Tall is formulated to remain permanently elastic once it hardens and it gives lasting water tight sealing. Available at marine dealers everywhere. Manufactured by the C. A. Woolsey Paint & Color Co., Inc., 229 E. 42nd St., New York.

Enterprise Expansion

Enterprise Division, General Metals Corporation, announces two new sales and service offices to handle engine business—Denver and Minneapolis.

Hugh Goodwin becomes manager of the New York Enterprise branch office, as H. T. Anderson returns to San Francisco as Assistant General Sales Manager under Vice President Paul I. Birchard.

Hr. Birchard says that good application engineering and close work with consulting engineers is turning up substantial business, requiring expanded sales and service facilities for the Enterprise Division.



Dust Masks

These masks promote maximum labor efficiency by protecting workers from nuisance dusts. They permit free breathing and conversation with maximum comfort, yet are washable and sturdy enough for continuous use; inexpensive enough to be discarded.

These masks owe their superiority to the unusual material from which they are made. They are processed from an amazing vegetable fibre, soft in texture, porous, absorbent and free from irritating lint or yarn.

For complete information or trial order, write to General Scientific Equipment Co., 2700 W. Huntingdon Street, Philadelphia 32, Pa.

Underwater Sound and Television Tested

Underwater sound recordings and tests with underwater television were made on a 10-day cruise of the *M/V Pompano*, a 57-foot exploratory fishing research vessel, operated by the FWS Branch of Commercial Fisheries. The cruise was completed at Miami, Florida, after tests near Bimini Islands in the Western Bahamas.

Underwater sound recordings were obtained on schools of bluefin tuna, which migrate northward along the western shore of the Bimini group in May and June each year. Numerous schools containing from 10 to 20 large tuna (each 400 lbs. or over) were sighted to the west of Gun and Cat Cays during a 3-day period. Twenty-one tape recordings were made while tuna were observed at distances from 5 feet to about 75 yards from the hydrophone. A small chartered float plane was helpful in spotting the schools and in guiding the boat into position near the fish.

The recordings will be analyzed in the near future at the Service's Gear Research Station at the University of Miami Marine Laboratory to determine if they contain any sounds attributable to the tuna. If they do, additional work will be undertaken to develop special devices to help commercial fishermen locate schools of tuna (and possibly other fish) by the sounds they produce.

Preliminary tests were also carried out with industrial television equipment adapted for underwater use to determine its suitability for studying fishing gear in operation. The camera was lowered in a water-tight housing and trained on sections of the bottom 15 to 20 feet away from the camera lens. Small fish, seaweed, and coral formations on the bottom in depths up to 40 feet were visible on the monitor screen in good detail. This indicated that the equipment, with certain improvements such as a remote control for changing the iris opening, can be developed into a useful tool for studying otter trawls and other types of fishing gear in operation.

Ups and Downs of Sardines

(Continued from page 11)

In comparing the two years in regard to the age composition of Sardine, the most striking feature of 1936 is the abundance of the 1- year class; it comprises more than 60% of the total catch in number as well as in quantity, which makes up the bulk of a fish school.

As regards the 2- year class, they are inferior to the 0-year class in number but exceed the latter by far in tonnage. This means that around 1936 the 1- and 2- year classes occupied a large percentage of the total catches.

As to the 3- year or older class, in 1951 their percentage in age composition is larger than in 1936. But their absolute quantity being rather small this factor may not greatly affect the total production.

Beach scene at boat launching, Katakai

Summary

The production of Iwashi in Japanese waters reached its peak in 1936. After that a rapid decline was seen year after year and finally it reached bottom in 1945. But now there are indications of a gradual recovery in production.

The recent increased catch of Iwashi has been largely contributed by Anchovy rather than by Sardine. It is a question whether the total Iwashi catch can reach the level of 1936 in the near future. It is apparently doubtful that we can attain such top goals again unless the stock of Sardine may be recovered . . . and there is no indication of such recovery for the time being. *

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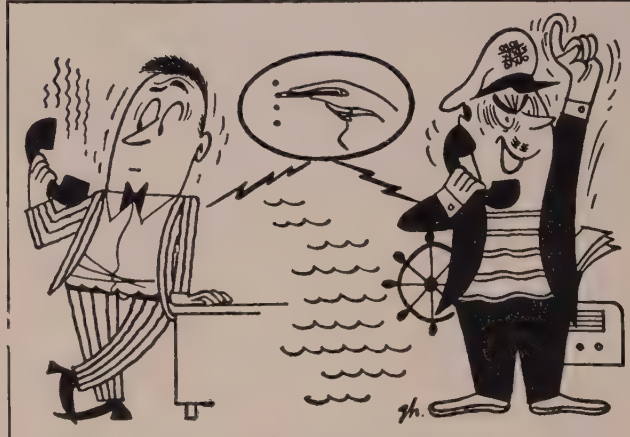

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Salvaging The Courageous

(Continued from page 17)

built over the number three wells, through which it was hoped the fish could be removed by manual labor. Pressure, however, at this depth caused buckling of the inside lining plates.

It became necessary to abandon this method of fish removal, and reversion to the diver method was made. Large hoses were run to the openings of the submerged wells, and the fish were jettisoned to a stand-by vessel by divers through these hoses. Being entirely dependent upon inside compartments within the vessel to effect stability, complete removal of the fish was necessary to eliminate clogging of the water pump screens while drawing out the water from these compartments.

Mechanical Difficulties

Along with removal of the fish, stability in the ultimate method used presented serious problems, and a means to control this stability at all times during the actual refloating operation had to be devised. To accomplish this a central control station was rigged on a platform between the two cofferdams over the number three holds. With an air manifold on which valves and gauges were mounted, we were able to control the air and water in all aft wells.

Gasoline-driven suction pumps were mounted on a platform amidships suspended by the ship rigging with the suction hoses leading to the various wells. A ten inch diesel-driven suction pump was set over the pilot-house for suction into the engine room. Other wells were sealed off and air was blown through the manifold control station into the wells and discharged the water through an opening in the hatch covers.

Another manifold was rigged aboard the tug to control the forward tanks of fuel and fresh water. As the stern wells were emptied of water and the vessel began to rise, a crane and sling was employed at the bow. The stability problem became increasingly acute as the vessel came off the bottom.

Suction from the engine room was hampered by numerous valves and connections permitting the flow of water and diesel oil into the compartment, and for a time little headway was achieved there. The shaft alley was reported tight, and a good deal of reliance was placed on this factor, but in the final efforts it was found to be of little value due to the opened drain valves there.

It was later found necessary to relocate pump suctions and secure openings in the upper and lower engine rooms as the pumps suctions reached the water surface. Packing glands around the ammonia compressors and valves in the ammonia system began to leak, and this probitited work inside the hull until ammonia masks could be obtained. Removal of the fish was also hampered originally due to the characteristics of a raised deck tuna clipper, where the raised deck extends over four of the fish wells. This required burning of plates under water by deep sea divers for entry of the jet hoses into these compartments.

Mechanical Parts Not Damaged

A popular belief is that deterioration progresses rapidly in a vessel and her machinery when submerged for such a length of time. This is not true when the parts are totally submerged. Engines have been known to be submerged for 30 to 60 days and found in no greater degree of deterioration than those submerged for one or two days. It is only after contact with the atmosphere that a rapid pace of deterioration sets in following submersion.

To retard this action, repair crews were put to work immediately after refloating. All engines, compressors, pumps, and motors, as well as other vessel equipment, were washed down with fresh water. Following this, mechanics began oiling machinery and started disassembly, working through the night.

The cost of salvaging the Courageous, although expensive at $65,000, turned out to be half the cost of the method utilizing a cofferdam and approximately two thirds of the cost of pile dolphins, winches, and cranes. In addition, the method used saved some of the cargo which would have been impossible with the use of any other method. The repairs to the vessel after raising, exclusive of salvage costs, is estimated in the vicinity of $100,000.

It is believed the cost of repairs and salvage costs, plus the loss of $64,000 of her $90,000 cargo, will result in a loss in excess of $230,000. It is understood the Courageous was insured for $400,000. It is obvious this accident will be extremely costly for the San Francisco hull underwriters. *

Precautions Proposed For S.D. Harbor

Tightened precautions against future tunaboat mishaps in San Diego harbor have been recommended.

The recommendations were forwarded by Harold Cary, manager of the American Tunaboat Association, to Port Director John Bate after the two had conferred on the subject with other harbor leaders.

Although sinkings and fires have occurred infrequently in the harbor in recent months, the proposed clampdown on vessel care grew directly out of the sinking of one boat, and the near sinking of another at her Embarcadero dock.

Cary recommended the following precautions should be observed by tunaboats in port with no cargo aboard.

The Harbor Department should be advised promptly where the boat is moored, all sea valves should be closed, the bilge and bilge alarm should be checked and crews' quarters and other enclosed spaces should be inspected as possible fire hazards before the men leave the vessel.

Although added regulations may be drawn up for cargo-laden vessels, "it is taken for granted that, where machinery is running and fish cargoes are aboard, watches are maintained at all times."

Cary also advocated placing public phone booths at key mooring spots, with the phone numbers of Police, Fire and Harbor Departments posted conspicuously. He suggested that the Harbor Department advise all vessels tying up of berthing arrangements and harbor requirements.

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 (Continued from page 8)

This is a large order. At the same time the Commission is directed to remember while engaged in such studies that its findings must be consistent with a sound domestic economy, our foreign economic policy, particularly bearing in mind the effect of such trade on our national security and our total foreign policy.

At the same time, however, Congress will continue to consider such legislation as affects fish or other imports. There is no evidence yet that Congress will follow the practice of adopting the recommendations of any such bodies without debate.

--o--

NEW TUNA TARIFF BILL.--Bringing the total now to six, Rep. Wilson (R.-Calif.) introduced a bill to impose duties on the importation of tuna. It varies little from others and has been referred to the House Committee on Ways and Means.

It will be considered by the committee with the others, come the next session of Congress, either October or January.

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FISHERMEN'S INCOME TAX.--Also referred to the Committee on Ways and Means is another last-minute bill by Rep. Metcalf (D.-Mont.) to extend to fishermen the same equal treatment given farmers who may file income tax by the "estimated" method. This will come up next session. Under this system, returns are estimated in advance and paid quarterly.

--o--

FISH IMPORT PROBE.--Rep. Bates (R.-Mass.) introduced a resolution requesting the Secretary of Treasury to investigate the importation of fish under the Anti-Dumping Act of May 27, 1921. It was referred to the Committee on Ways and Means.

This one is not expected to get very far. The Anti-Dumping Act is seldom used. The problem of imports has already been assigned to the new Commission on Foreign Economic Policy created by the same Congress which will be asked to pass the Bates resolution.

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WILDLIFE AND FISHERIES RESTORATION.--Rep. Angell (R.-Ore.) introduced a bill to provide that the Federal Government help the states in wildlife and fish projects. The bill has been referred to the Committee on Merchant Marine and Fisheries.

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FISH AND EATING.--The nation's dining tables are more likely to contain fish, if restaurant cooks, housewives, and future housewives learn how to cook fish, the Fish and Wildlife Service believes.

Accordingly, the agency has begun a series of demonstrations on how to cook fish, to be given in four states through the fall to stimulate the consumption of fish.

The first of the series started August 24 in Wisconsin in the northern and central parts of the state. Michigan will be next, where it

is planned, starting in September, to give demonstrations for school lunchroom personnel. In October and November there will be two series of demonstrations in Pennsylvania.

The demonstrations will reach as far west as Iowa. Industry members who are interested in seeing the demonstrations extended to West Coast points should write the Fish and Wildlife Service.

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THE DRAFT.--The Selective Service Operations Bulletin No. 91 has been amended to permit the Fish and Wildlife Service to be consulted on the essentiality of registrants engaged in the commercial fishing industry.

The amendment was necessary in order to continue such screening, formerly conducted by the Defense Fisheries Administration, which has been abolished.

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WHEN IS A SARDINE?--Food and Drug Administration here still may not be sure just what a sardine is. No matter what it is, however, it better be labeled correctly.

The agency last month held up $250,000 worth of Japanese sardines at New York Harbor. The FDA has responsibility for protecting domestic fishermen from imports. It was a question of whether the labels were correct. So, ichthyologists of both the United States and Japan were called in.

Just before we went to press, the American ichthyologists were ahead. Some of the "sardines" were identified as the "round herring" family of the Virginia coast. It seems that a true sardine is a pilchard sardine, but one that isn't is a herring.

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JAPANESE CANNED TUNA.--Reports from Japan here via the U.S. Embassy are that the Japanese tuna industry is upset by a proposed bill favoring the export of canned tuna over frozen tuna.

According to the report, the purpose of the bill first was plainly spelled out as "the promotion of canned tuna and skipjack exports." When frozen interests protested, the bill was grandiloquently renamed, "A Bill for the Promotion of Exports of Processed Aquatic Products."

As we understand it, the principal terms of the bill provided that most of the Japanese tuna be exported in canned form.

--o--

AMERICAN IN ECUADOR.--It is reliably reported here that a new fishing company is being promoted in Ecuador by an United States citizen. The company plans to buy fish from local fishermen in Manabi Province for export to the United States.

There may be a gimmick, however. The company is also trying to get a contract from the Ministry of Economy to fish in its own boats in Ecuadoran waters. This may stop the export plan altogether.

Cruise Report

THE FWS exploratory vessel, Charles H. Gilbert, departed from Honolulu in June on a cruise designed to test the reaction of tuna schools to artificial bait and to scout for schools of skipjack tuna in waters of the Hawaiian chain, returning to Honolulu in July.

A systematic scouting of Hawaiian waters disclosed a wide distribution of aku (skipjack or striped tuna) in the area. Notable concentrations of skipjack schools were encountered in widely separated areas, with more schools per unit of area north of the islands than immediately to the south of them, and an especially heavy concentration of fish extending east and west of a point some 50 miles northeast of Oahu.

Farther to the south, however, two other widely separated areas of tuna abundance were found at 100 and 200 miles south of Honolulu. All of these concentrations were outside the area regularly fished by the local sampan fleet.

Generally, the greater number of schools were sighted on scouting runs made in the east to west direction, with lesser numbers on the west to east runs. Perhaps this was caused by less favorable scouting conditions when running upwind or possibly by easterly movement of the tuna schools. The north-south runs showed no significant difference in the number of sightings with the direction of the vessel.

In testing chemical and visual attractants at sea, various combinations of tuna extract and artificial bait were used. The tuna extract alone failed to obtain any noticeable response from the skipjack schools, which appeared to be neither attracted nor repelled by it. Artificial bait of various kinds such as strips or squares of tin, tinfoil or aluminum foil were tried as possible visual attractants, being chummed alone or together with extract. Shiny materials attracted the fish momentarily, probably caused by the resemblance of the glittering material to live bait, but the fish were seen to turn away from the material after approaching it once. Out of 17 fish examined, caught from the school in which tin strips were tested, two of them contained one strip each.

Chumming of dead bait (nehu) from the forward well deck occasionally brought response from the fish which followed the bait as it sank. The skipjack soon returned to the surface when live bait was chummed.

No noticeable response was obtained with calcium carbide pellets which effervesced as they slowly sank. In all cases the fish soon departed from the vessel and had to be re-chummed with live bait before further tests could be carried out.

O. E. Sette, director of investigations, stated that while the Gilbert is on the West Coast for repairs and alterations, the program will be continued by another vessel, the Hugh M. Smith.

The cruises of the Gilbert have involved, in addition to fish scouting, weekly investigations of the physical and chemical changes in the sea water which might be related to tuna abundance. The first work undertaken by the Smith will be a full-fledged hydrographic cruise for the purpose of studying in detail the chemical and physical properties of the local ocean waters during the summer season in order to compare water conditions when tuna are abundant with the winter conditions when fish are scarce. *

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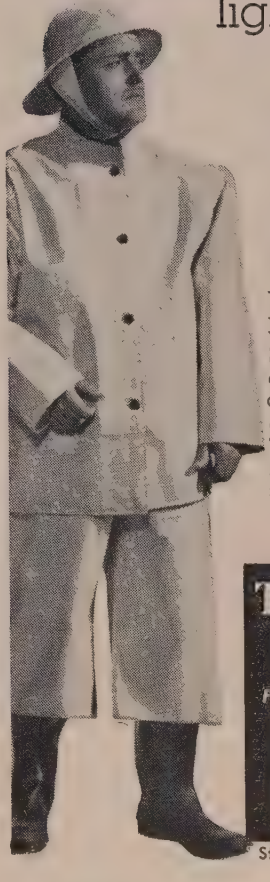

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The GLOBE

An International News File Compiled from FOREIGN REPORTS

Costa Rica.—The Inter-American Tropical Tuna Commission is going to try to rehabilitate the anchoveta resource of the Gulf of Nicoya by transplanting at least 4,000 scoops of healthy adult anchovetas to there from the Gulf of Fonseca or the Gulf of Panama prior to the end of October of this year.

It is planned to let a contract to a suitable bait boat to do this job. Offers are being received at the Scripps Institution of Oceanography, La Jolla, California.

Panama.—The Minister of Agriculture has issued a decree effective immediately, which: (1) prohibits commercial fishing "within waters of the continental shelf of the Republic" except by persons possessing a second-class commercial license; (2) announced pending legislation by the National Assembly, whereby commercial fishing will be permitted only by vessels built in Panama. This provision will not apply to vessels presently engaged in fishing; its purpose is to protect national marine life and to develop local ship-building. Bait fishing is not affected by the decree, says a U. S. Embassy dispatch from Panama City.

Significantly, the decree implements the Panamanian claim to the Continental shelf. Also, for the first time a specified commercial license is required, costing $10 yearly and can be bought only by Panamanian and American citizens.

South Africa.—Beginning in 1954, young men wishing to become fishermen will receive a special training course at the South African Naval Gymnasium at Saldanha Bay. Open to medically fit Europeans between the ages of 16 and 22, the training will take a year and 30 trainees will be admitted in 1954. This vocational training plan is the culmination of long effort by leaders in the fishing industry to develop schools for fishermen, including instruction in navigation, seamanship, engine maintenance, signaling, tending nets, etc.

Hawaii.—A 2,500 mile, 69 station hydrographic cruise, part of the Pacific Oceanic Fishery Investigations' program to study conditions governing the local skipjack fishery, was completed on August 26. The FWS research vessel Hugh M. Smith, carrying on oceanographic and biological investigations in an area of 86,000 square miles surrounding the Hawaiian Islands, collected data to help understand the habits of the skipjack and the conditions influencing their distribution to permit expansion of the present localized and highly seasonal fishery.

Great Britain.—Processing herring to resemble salmon in taste, smell, and appearance is reported from Fraserburgh. It is said that only experts can tell the origin of the new pack, and then only by texture . . . as the process eliminates the defects which limit the sale of canned herring without damaging the nutritional value of the fish. Plans are being made to exploit the process.

New Guinea.—A tuna clipper operated by the Government of Netherlands, New Guinea, is investigating tuna fishing in the waters north of here. Investigations in the Arafura Sea, south of New Guinea, will be made shortly by a trawling cutter.

Portugal.—The Portuguese Government has established a Fund for the development and modernization of the fishing industry. It will make loans, repayable in 12 annual installments beginning 3 years from the date of the loan, and secured by mortgage on the vessels or other property acquired with the loan. Loans on new vessels will be granted up to 75% of the value of the vessel, but must be built in Portugal unless of a type that cannot be built by Portuguese shipyards.

Norway.—An automatic baiting machine for line fishermen has been tested by a Norwegian fishing vessel with good success. Reports say it worked very well with fresh bait, even in rough weather. With good bait it was about 90% effective, and saved time and labor. There was no waste of bait and no apparent difference in the catch of hand-baited and automatically-baited hooks.

Peru.—Exports of canned fish to the United States in 1952 amounted to 21,040,532 pounds, valued at $4,016,720, reports a U. S. Embassy dispatch from Lima. This is a 25% increase in quantity and a 14% increase in value as compared with 1951 shipments of 16,812,959 pounds, valued at $3,616,930. The United States received 76% of all Peruvian canned fish exports in 1952 and 85% in 1951.

Ecuador.—A new fishing company is being promoted here by a United States citizen. This company plans to buy fish from local fishermen in Manabi Province for export to the United States; it is also seeking a contract from the Ministry of Economy to permit it to operate its own fishing boats in Ecuadoran waters.

Japan.—The tuna industry here is agitated by a proposed bill which would favor the exportation of canned tuna rather than frozen tuna, says a U. S. Embassy dispatch from Tokyo. The original bill was concerned with "the promotion of canned tuna and skipjack exports." This aroused such a protest from the frozen-tuna interests, that an amendment has been submitted which renames the bill, "A Bill for the Promotion of Exports of Processed Aquatic Products."

This vague wording is causing some comment as a possible smoke screen. For example, in the text "superior processed aquatic products" is interpreted by the industry as canned tuna or tuna-like fishes; and the words "regulating exports of those processed in a lesser degree," probably means frozen tuna.

Central California Pilchard Season

The 1953-54 pilchard (sardine) season at Monterey and San Francisco was officially opened on August 1, by State Fish and Game Department regulations. However, with no signs of pilchards in these areas there had been no activity in this fishery up to press time. And no plans announced for ex-vessel pilchard prices. It is understood that a price of $75 per ton has been informally agreed to at Monterey. A year ago there was no pilchard production at Monterey during August, but an ex-vessel price agreement of $70 per ton was reached on August 18.

Japanese Ingenuity?

A shipment of 100 cases (48 No ½ cans) of Japanese frozen-cooked tuna in unsealed cans recently was received by a broker in San Francisco, according to FWS reports. Previously, small samples of this product were received by several canners and brokers for experimental purposes, the first shipment of which arrived in southern California late in 1952.

It is understood that in Japan the cans are filled with solid-pack tuna, frozen without lids, and packed 48 cans to a carton for shipment. A sheet of cardboard is placed between the layers of cans in the carton and the product is kept frozen in transit. The tariff rate for this import was 12½% ad valorum.

It is also understood that the experimental lots received earlier were handled in this country by simply adding oil and salt, sealing with a lid, and processing in a retort.

Inter-American Meeting

Lee F. Payne, member of the California Fish and Game Commission from Los Angeles, was elected president of the Inter-American Tropical Tuna Commission at its meeting in San Diego recently. His election was unanimous.

The meeting was attended by commissioners from the United States and Costa Rica—the two member-nations—and by a representative of the Republic of Panama, which plans to join soon.

John L. Farley, new head of the U. S. Fish and Wildlife Service, attended as an observer.

Richard S. Croker was present as observer for the California Department of Fish and Game, which is cooperating in the international commission's tropical Pacific research program.

U. S. commissioners were Payne, Eugene Bennett of San Francisco, and Gordon Sloan of Astoria, Oregon. Costa Rican commissioners were Jose L. Cardona-Cooper and Virgilio Aquiluz. Consul General Dias represented Panama.

Three Co-Ops Join Forces

Three fishermen's cooperatives have joined in a common effort to promote their welfare in the albacore fishery. They are the California Commercial Fishermen's Assoc. of Terminal Island, the Five Star Fish & Cold Storage of San Diego, and the Fishermen's Cooperative Assoc. of Seattle. As a result, a contract has been negotiated with the tuna canners for the first time.

A meeting of the Board of Directors of the above groups decided on an assessment of $6 per ton of albacore delivered to carry on this work. This deduction will be made by the canner and delivered to the port cooperative. Accurate records shall be maintained so that each group meets its obligation on a pro-rata basis.

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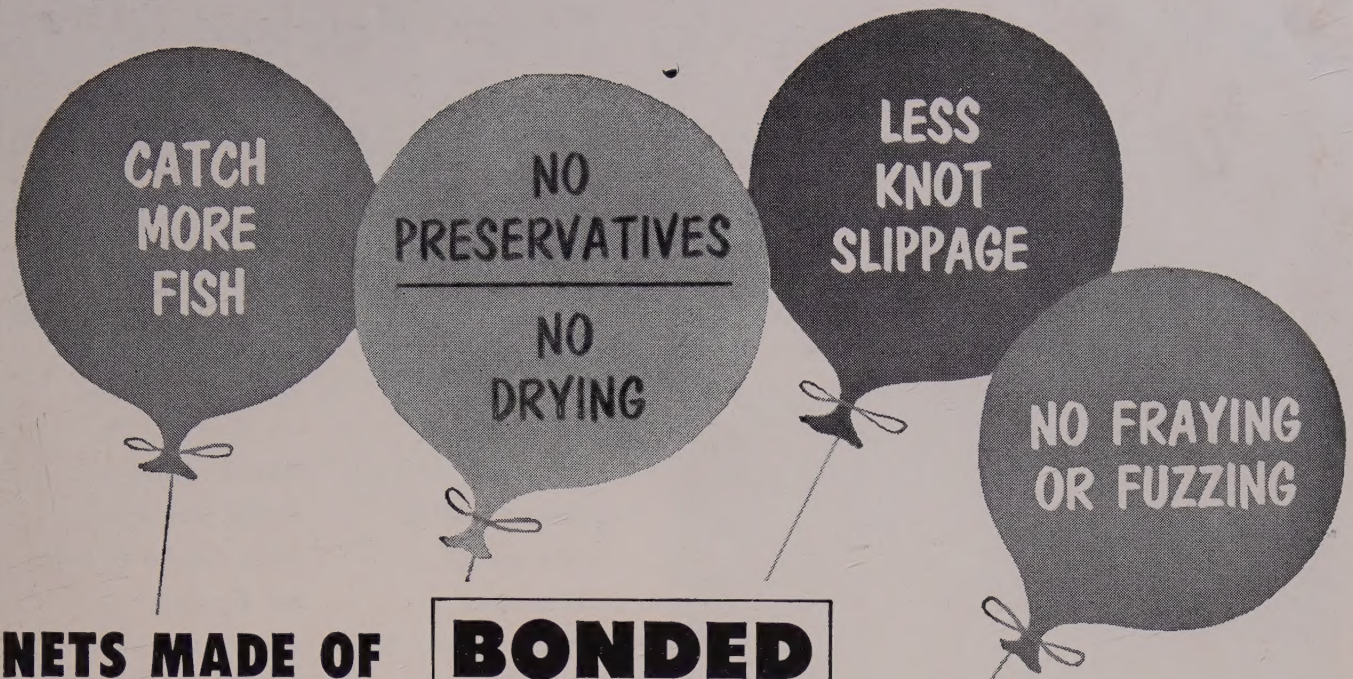

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